

# PROJECT DESCRIPTION

## I. GENERAL

This project involves the relocation of the north leg crosswalk and the installation of a new crosswalk across the south leg of the MD 500 @ Belcrest and Queensbury Rd intersection. All existing pedestrian equipment will be upgraded to APS with Countdowns and all signals upgraded to LED's.

## II. INTERSECTION OPERATION

- The Intersection is to operate in a NEMA 6-phase, fully-actuated mode with pushbutton activated crossings on the North, South and West legs of the intersections. There is a hardwire pre-emption for the firehouse located in the SW corner of the intersection.

## III. CONTROLLER REQUIREMENTS

- The existing controller shall be used and a 2-wire central control unit installed by the SHA signal shop. The CCU shall be delivered to the SHA Signal Shop for testing prior to its installation. All internal cabinet wiring will be done by SHA forces. Please contact Mr. Ed Rodenhizer at least 72 hours prior to any work.

## IV. The pushbutton operation will be as follows:

NORTH LEG WAIT- WAIT TO CROSS QUEENS CHAPEL AT BELFAST AND QUEENSBURY. CROSSWALK ANGLES RIGHT  
SOUTH LEG WAIT- WAIT TO CROSS QUEENS CHAPEL AT BELFAST AND QUEENSBURY. CROSSWALK ANGLES RIGHT  
WEST LEG WAIT- WAIT TO CROSS BELFAST AT QUEENS CHAPEL. CROSSWALKS ANGLES LEFT.  
ALL WALK MESSAGES SHALL BE IN THE FORM OF A RAPID TICK.

## A. EQUIPMENT TO BE SUPPLIED BY THE ADMINISTRATION

ITEM#	QUANTITY	ITEM DESCRIPTION
9571	41.25 SF	SHEET ALUMINUM SIGN (MAST ARM/POLE MOUNTED) - 2 EA W11-8 36"x72" W11-8(1) FIRE HOUSE SIGNAL - 2 EA 9"x15" R10-3(1) PUSHBUTTON TO CROSS BELFAST RD - 4 EA 9"x15" R10-3(1) PUSHBUTTON TO CROSS QUEENS CHAPEL RD
9571	20 SF	SHEET ALUMINUM SIGN SPAN WIRE MOUNTED - 1 EA 16" X VAR 03-(1)2-STREET NAME SIGN QUEENSBURY RD - 1 EA 16" X VAR 03-(1)2-STREET NAME SIGN BELCREST RD
9570	84.375 SF	SHEET ALUMINUM SIGN (GROUND MOUNTED) - 4 EA 36"x36" S1-1 SCHOOL CROSSING SYMBOL - 1 EA 36"x36" W11-2 PEDESTRIAN CROSSING SYMBOL - 2 EA 21"x15" W16-7D RIGHT DIAGONAL ARROW, FYG - 2 EA 21"x15" W16-7D LEFT DIAGONAL ARROW, FYG - 1 EA 21"x15" M6-2 LEFT DIAGONAL ARROW, BLK/WHITE - 1 EA 12"x24" R4-7(2) NARROW KEEP RIGHT SYMBOL - 1 EA 24"x30 R4-7(1) KEEP RIGHT SYMBOL - 1 EA 30"x30 R3-7(L) LEFT LANE MUST TURN LEFT

## B. EQUIPMENT TO BE SUPPLIED AND/OR INSTALLED BY THE CONTACTOR

ITEM#	QUANTITY	ITEM DESCRIPTION
1001	1 EA	MAINTENANCE OF TRAFFIC
1002	700 LF	REMOVAL OF EXISTING PAVEMENT LINE MARKINGS, ANY WIDTH
2002	6 CY	TEST PIT EXCAVATION
5002	700 LF	12" WHITE LEAD FREE REFLECTIVE THERMOPLASTIC PAVEMENT MARKINGS
5003	75 LF	24" WHITE LEAD FREE REFLECTIVE THERMOPLASTIC PAVEMENT MARKINGS
6001	125 LF	STANDARD TYPE A COMBINATION CURB AND GUTTER PAN, 8" DEPTH
6002	1500 SF	5" CONCRETE SIDEWALK
8001	12 EA	12" (R,Y,G) LED SIGNAL HEAD SECTION
8003	1 EA	2 WIRE CENTRAL CONTROL UNIT
8007	6 EA	8" (R,Y,G) LED SIGNAL HEAD SECTION
8010	6 EA	AUDIBLE/TACTILE PEDESTRIAN PUSHBUTTON STATION AND SIGNS
8011	6 EA	BREAKAWAY PEDESTAL POLE (ANY SIZE)
8014	6 EA	LED 16" COUNTDOWN PEDESTRIAN HEAD
8015	27 EA	LED SIGNAL HEAD MODULES (ANY SIZE)
8016	1 EA	REMOVE AND DISPOSE OF EQUIPMENT PER ASSIGNMENT
8027	70 LF	UP TO 4" SCHEDULE 80 RIGID PVC CONDUIT-TRENCHED
8028	170 SF	DETECTABLE WARNING SURFACES-BLACK
8032	146 LF	WOOD SIGN SUPPORTS 4"x6"
8033	325 LF	#6 AWG STRANDED BARE COPPER GROUND WIRE
8045	84.375 SF	INSTALL GROUND MOUNTED SIGN
8046	61.25 SF	INSTALL OVERHEAD MOUNTED SIGN
8052	4 EA	RELOCATE EXISTING SIGNAL HEAD
8055	1250 LF	ELECTRICAL CABLE-2 CONDUCTOR #14 AWG
8057	1300 LF	ELECTRICAL CABLE-5 CONDUCTOR #14 AWG
8058	400 LF	ELECTRICAL CABLE-7 CONDUCTOR #14 AWG
8025	120 LF	UP TO 4 INCH SCHEDULE 80 RIGID PVC CONDUIT-BORED
8044	3 EA	FURNISH AND INSTALL ELECTRICAL HANDHOLE

8030 300 SF REMOVE AND RESET DECORATIVE BRICK

## CONTACTS

### DISTRICT

MR. BRIAN YOUNG  
ASSISTANT DISTRICT ENGINEER - TRAFFIC  
301-513-7404

MR. AUGIE REBISH  
ASSISTANT DISTRICT ENGINEER - UTILITIES  
301-513-7350

MR. WAYNE MOWDY  
ASSISTANT DISTRICT ENGINEER - MAINTENANCE  
301-513-7304

### OFFICE OF TRAFFIC AND SAFETY

MR. RICHARD DAFF SR.  
CHIEF, TRAFFIC OPERATIONS  
410-787-7630

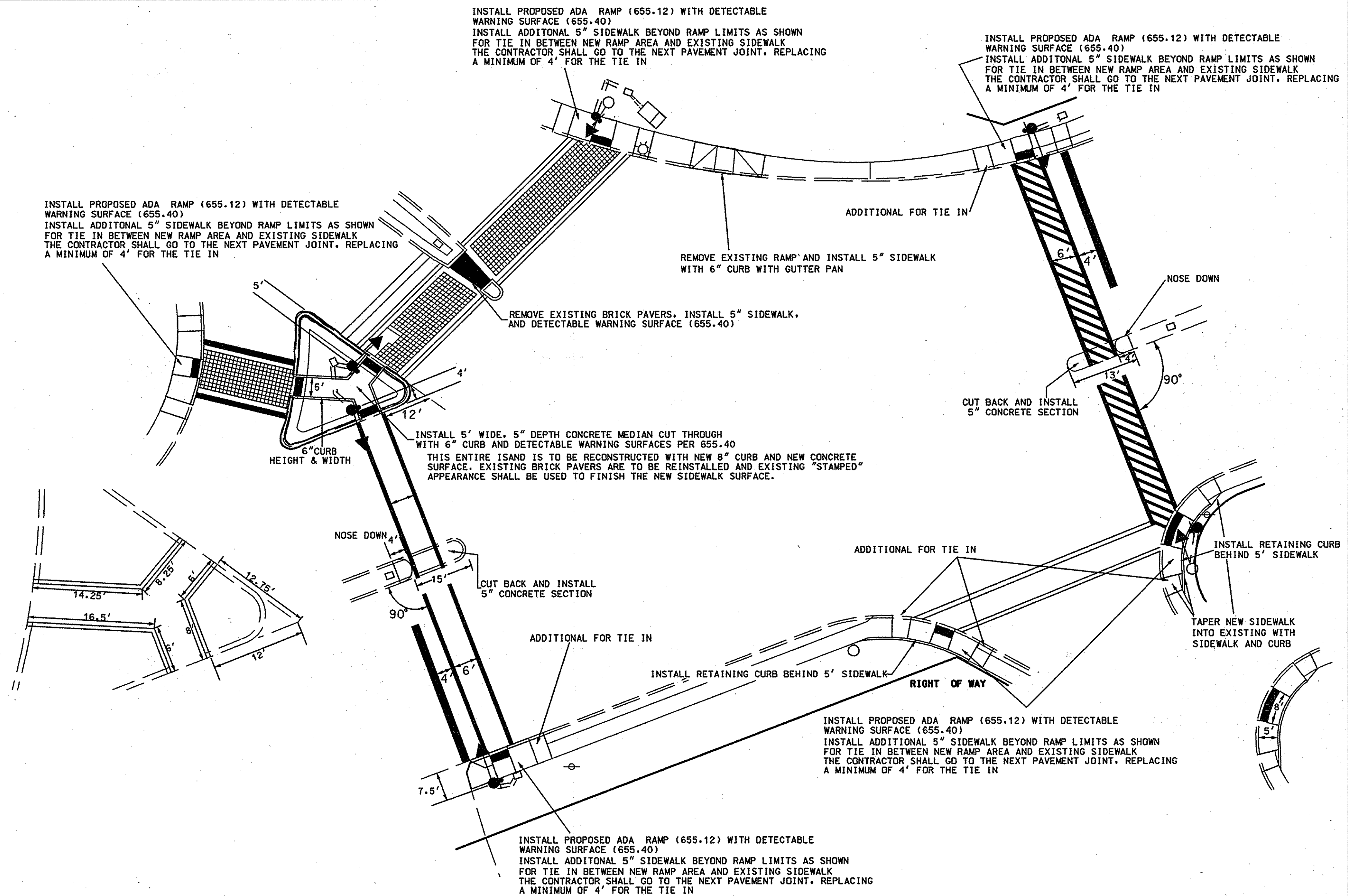
MR. ROBERT SNYDER  
ASSISTANT DIVISION CHIEF, TRAFFIC OPERATIONS  
410-787-7630

MR. ED RODENHIZER  
TEAM LEADER SIGNAL OPERATIONS  
410-787-7650

MR. EUGENE BAILEY  
TEAM LEADER SIGN OPERATIONS  
410-787-7670

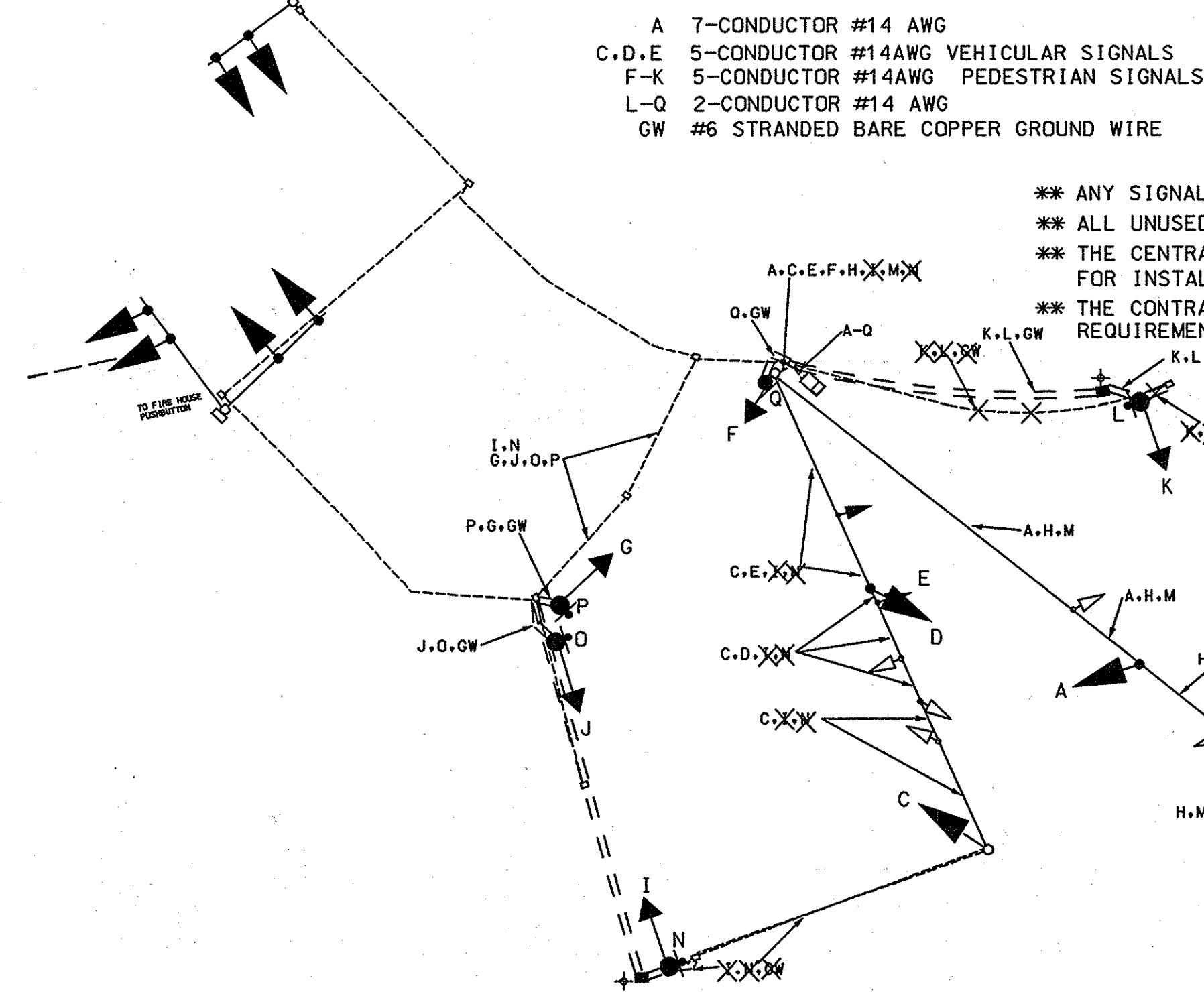
## GENERAL NOTES

- VIDEO CAMERA LOCATION / ALIGNING SHALL BE COORDINATED WITH THE SHA ENGINEER.
- THE CONTRACTOR SHALL VERIFY ALL PROPOSED POLE AND CABINET LOCATIONS PRIOR TO INSTALLATION.
- THE CONTRACTOR SHALL BE RESPONSIBLE FOR TERMINATING ALL SIGNAL CABLE TO THE APPROPRIATE TERMINALS AND PROPERLY LABEL EACH CABLE.
- THE CONTRACTOR SHALL VERIFY ALL UNDERGROUND UTILITIES PRIOR TO INSTALLING PROPOSED SIGNAL EQUIPMENT. IF ANY UTILITY CONFLICTS SHOULD ARISE THE CONTRACTOR SHALL CONTACT THE PROJECT ENGINEER
- ALL TRAFFIC SIGNAL FOUNDATIONS SHALL BE INSTALLED AT THE FINAL SIDEWALK OR CURB GRADE FOR CLOSED SECTIONS, HIGHEST ROADWAY PROFILE GRADE FOR OPEN SECTIONS, TO MEET CLEARANCES AS SPECIFIED IN MD 816.03, MD 818.01, MD 818.02, MD 818.04. THE CONTRACTOR SHALL VERIFY ULTIMATE GRADES PRIOR TO THE INSTALLATION OF ALL SIGNAL EQUIPMENT.
- PUSHBUTTONS ARE TO BE LOCATED SO THAT THEY CAN BE ACTIVATED BY A PERSON IN A WHEELCHAIR FROM A 60"x60" LEVEL LANDING AREA. A LEVEL LANDING AREA IS AN AREA WITH A CROSS SLOPE OF LESS THAN OR EQUAL TO 2%.
- THE 10' SEPARATION BETWEEN THE PUSHBUTTON IS TO BE MEASURED FROM THE FACE OF THE PUSHBUTTON TO THE FACE OF THE PUSHBUTTON, NOT FROM THE CENTER OF THE POLE TO THE CENTER OF THE POLE.
- PUSHBUTTON IS TO BE LOCATED SO THAT A PEDESTRIAN IN A WHEELCHAIR LOCATED ON THE LEVEL LANDING AREA DOES NOT HAVE TO REACH MORE THAN 18".
- LOCATION OF ACCESSIBLE PEDESTRIAN SIGNAL PUSHBUTTONS MUST MEET LOCATION REQUIREMENTS OF MUTCD SECTION 4E-09 AND FIGURE 4E-2 AND THE NCHRP PUBLICATION, "ACCESSIBLE PEDESTRIAN SIGNALS: GUIDE TO BEST PRACTICE." IF NOT MET, THE CONTRACTOR IS TO STOP WORK ON PUSHBUTTON LOCATIONS UNTIL THE CONFLICT IS RESOLVED, OR IF NEEDED, A DESIGN WAIVER IS OBTAINED, APPROVED BY THE DIRECTOR, OFFICE OF TRAFFIC AND SAFETY.
- PUSHBUTTONS ARE TO BE INSTALLED PARALLEL TO THE CROSSWALK FOR WHICH THEY ARE INTENDED



## DETAILS SPECIAL NOTES

- THE NW CORNER HAS STAMPED CONCRETE FOR THE SIDEWALK. ALL NEW SIDEWALK SECTIONS SHALL BE REINSTALLED WITH THE SAME STAMPED PATTERN. AREAS WHERE DETECTABLE WARNING SURFACES ARE INSTALLED SHALL STILL USE A STANDARD FINISH SIDEWALK.
- ALL DETECTABLE WARNING SURFACES SHALL BE BLACK



- \*\* ANY SIGNAL NOT NOTED WITH PROPOSED CABLE IS TO USE THE EXISTING CABLE
- \*\* ALL UNUSED CABLE AND CABLE FROM EQUIPMENT THAT WAS REMOVED, SHALL BE REMOVED
- \*\* THE CENTRAL CONTROL UNIT SHALL BE PROGRAMMED PRIOR TO DELIVERING TO THE SIGNAL SHOP FOR INSTALLATION
- \*\* THE CONTRACTOR SHALL ADJUST SIGNAL HEAD HEIGHTS AS NEEDED TO MEET 17' MINIMUM REQUIREMENTS

**SHA**

STATE OF MARYLAND  
DEPARTMENT OF TRANSPORTATION  
STATE HIGHWAY ADMINISTRATION  
OFFICE OF TRAFFIC & SAFETY  
TRAFFIC ENGINEERING DESIGN DIVISION  
MD 500 (QUEENS CHAPEL RD)  
AND MD 410A (BELCREST RD)/QUEENSBURY RD

## GENERAL INFORMATION SHEET

SCALE NA ADVERTISED DATE            CONTRACT NO. XX4495185

DESIGNED BY C STRAIN COUNTY PRINCE GEORGE'S  
DRAWN BY C STRAIN LOGMILE 16050002.08  
CHECKED BY J BIDDLE TMS NO. 1341  
F.A.P. NO. NA TOD NO.           

TS NO.589-E-GI DRAWING **SG-2** OF 2 SHEET NO. 2 OF 2

PLOTTED: Wednesday, June 04, 2008 AT 09:51 AM  
FILE: M:\Design\District 5\MD 410A @ MD 500\Redline 1\Redline-GI Sheet.dgn